



**King & MacGregor  
Environmental  
Inc.**

March 29, 2010

**Revised April 2, 2010 to correct paragraph four, line two, to read 'more environmental impact' in place of 'less environmental impact'.**

Mike Smolinski  
Land & Water Management Division  
Michigan Department of Natural Resources and Environment  
420 Fifth Street  
Gwinn, MI 49841

RE: Alternatives Documentation for the proposed Woodland Road project; DNRE  
File No. 09-52-0086-P.

Dear Mike,

At our last meeting with you on March 18, 2010 you requested that Woodland Road LLC analyze three additional alternatives to the proposed Woodland Road. After the meeting, we met with our clients and the analysis of the three additional alternatives was initiated. The alternatives have been identified as alternatives 8, 9, and 10. An additional alternative (7) for the Huron Bay Grade was presented to you previously, but has also been included in the summary information below.

Prior to your meeting last week in Lansing, we provided you with a figure showing all of the alternative routes that have previously been evaluated for this proposed project, including the three additional alternatives. As a supplement to the figure showing the routes, we are providing additional information on the three alternatives in this letter. We will be prepared to discuss these alternatives at our meeting with you and other DNRE staff on April 1, 2010.

The alternatives are Huron Bay Grade-Peshekee (Alternative 7); Triple A-CR 510-Red Road-North Lake Road (Alternative 8); Triple A-CR 510-Red Road-Greenwood Road (Alternative 9); and Triple A-CR 510-Red Road-Sleepy Hollow-Wolf Lake Road-US-41 (Alternative 10). Table 1 provides a comparison of the pertinent attributes of each of these additional alternatives considered.

As shown in Table 1, the overall detrimental impacts of these four additional alternatives evaluated have more environmental impact than the proposed Woodland Road and therefore should receive no further consideration. The detriments of each alternative are described below.

Alternative 7 (Huron Bay Grade) has 7.4 acres of additional wetland impact and 12 more stream crossings when making a comparative analysis to the proposed Woodland Road. The total length of the route is 38.5 miles, 16.2 miles longer

14039 Lakeside Avenue  
Bear Lake, MI 49614  
Phone: 231/912-0505

Other Offices:  
Grand Rapids  
Canton

[www.king-macgregor.com](http://www.king-macgregor.com)

than the Woodland Road route. The estimated construction cost of this alternative is \$61 million, which is \$20 million more than the Woodland Road.

**Table 1. Comparison of Additional Alternatives Considered to Woodland Road.**

Route Alternative	Total Route Length (miles) <sup>1</sup>	Projected Wetland Impact (acres) <sup>2</sup>	Projected Stream Crossings <sup>3</sup>	Total Projected Road Construction Budget
<b>Woodland Road</b>	22.3	27.1	13	\$41,000,000
<b>Alternative 7:</b> Triple A to Huron Bay Grade to Peshekee Grade to US 41 ( <b>Huron Bay Grade</b> )	38.5	34.5	25	\$61,000,000
<b>Alternative 8:</b> Triple A to 510 to Red Road to North Lake Road to US 41 ( <b>North Lake Road</b> )	50.8	31.1	28	\$80,000,000
<b>Alternative 9:</b> Triple A to 510 to Red Road to Greenwood Road to US 41 ( <b>Greenwood Road</b> )	47.9	29.1	30	\$78,000,000
<b>Alternative 10:</b> Triple A to 510 to Red Road to Sleepy Hollow to Wolf Lake Road to US 41 ( <b>Sleepy Hollow</b> )	41.1	23.6	28	\$77,000,000

Alternative 8 (North Lake Road) has 4 acres of additional wetland impact and 15 more stream crossings when making a comparative analysis to the proposed Woodland Road. The total length of the route is 50.8 miles, 28.5 miles longer than the Woodland Road route. The estimated construction cost of this alternative is \$80 million, which is \$39 million more than the Woodland Road.

Alternative 9 (Greenwood Road) has 2 acres of additional wetland impact and 17 more stream crossings when making a comparative analysis to the proposed Woodland Road. The total length of the route is 47.9 miles, 25.6 miles longer than the Woodland Road route. The estimated construction cost of this alternative is \$78 million, which is \$37 million more than the Woodland Road.

<sup>1</sup> Total Length of Route – This is the Total Length from the County Road AAA and Trail 5 intersection to the US 41 and County Road FY intersection.

<sup>2</sup> Projected Wetland Impact – The wetland impact is estimated using the Final Wetland Inventory. An assumed typical road cross section is used to calculate the width of impact that an alternative route will have for a calculated length of impact.

<sup>3</sup> Projected Stream Crossings – Stream crossings are estimated by using the Michigan Geographic Hydrography Framework. Generally, if a stream crossing shows up in this framework, there is a large probability that the crossing is a major crossing that would require a bridge type structure.



Mike Smolinski

March 29, 2010 (Revised April 2, 2010 to correct error)

Alternative 10 (Sleepy Hollow) has 3.5 acres less wetland impact but has 15 more stream crossings when making a comparative analysis to the proposed Woodland Road. The total length of the route is 41 miles, 18.7 miles longer than the Woodland Road route. The estimated construction cost of this alternative is \$77 million, which is \$36 million more than the Woodland Road.

As shown in the analysis of these additional alternatives, Alternatives 7, 8, and 9 are more wetland and stream impact than the proposed Woodland Road and all are substantially longer routes. The cost of construction of these alternatives is significantly more than the proposed Woodland Road due to the larger number of stream crossings and the length of the routes. In our opinion, Alternatives 7, 8, and 9 are not feasible or prudent and should not be given further consideration.

Alternative 10 has 3.5 acres less wetland impact, but 15 more stream crossings. Some of the stream crossings on this route are existing crossings and would be upgraded, but some are new stream crossings. Due to the additional 18.7-mile length of this alternative route and the additional \$36 million of construction cost, it is our opinion that Alternative 10 is not feasible or prudent and should not be given further consideration.

We look forward to discussing these alternatives with you at our meeting on April 1, 2010. I will have the map of the alternatives and this letter on a CD at our meeting this week which you can submit to Kate Hayes in Lansing.

Thank you for continuing to coordinate with us to resolve issues and questions with the DNRE processing of the application for permit for the Woodland Road.

Sincerely,



Charles L. Wolverton, Project Manager  
**King & MacGregor Environmental Inc.**

CC: Cary Gustafson  
Jessica Mistak  
Terry McFadden  
John Meier  
Jeff King  
Christine Bekkala

